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shown in FIG. 1 was used. To determine whether this tendency [is] was genuine or not, the chips tested by using the card 5' were tested, one by one. Of the chips which were found defective when tested [by means of the] using card 5', some proved flawless. This means that the probe card 5' can test chips but with an insufficient accuracy.

In the paragraph beginning at line 50 of column 2, enter the indicated amendment:

AB

This deterioration of probing-test accuracy is particularly prominent in the test of semiconductor memories having a large storage capacity. This is because these memories operate at so high a speed that only a little allowance is provided for the shifting of the leading and trailing edge time of each signal.

In the paragraph beginning at line 22 of column 4, enter the indicated amendment:

Embodiments of the present invention will now be described, with reference to the accompanying drawings. The components shown in one drawing, which are similar or identical to those shown in any other drawing, are designated at the same reference numerals and will not be described in detail.

In the paragraph beginning at line 14 of column 5, enter the indicated amendment:

Furthermore, the probe card 15 has a diameter D as small as that of the conventional probe card 5 (FIG. 1) which has four groups of probe needles arranged in one column. As a result, the difference in length between the longest and shortest wires provided on or in the substrate 20 is similar to the conventional card 5. It follows that the differences in resistance and capacitance among the wires is proportionally similar to the conventional card 5. Hence, the skew difference among the wires, which impairs the accuracy of probing test, disabling the tester to determine the true characteristic or ability of each chip tested is similar to the conventional card 5. Since the probe card 15 has a small diameter, it warps but very little, exerting but a very little stress on the wires provided on or in the substrate 20 and scarcely altering the electrical characteristics of the wires. In addition, since the wires are short, the crosstalk among the wires is small.

A5
In the paragraph beginning at line 31 of column 5, enter the indicated amendment:

In view of these advantages, the probe card 15 can serve to enhance the [productivity] production of semiconductor integrated circuits and also to reduce the manufacturing cost of semiconductor integrated circuits.

A6
In the paragraph beginning at line 35 of column 5, enter the indicated amendment:

FIG. 5A is a graph representing the results of conventional probing test, while FIG. 5B is a graph representing the results of the probing test performed by using the probe card 15. As seen from FIG. 5A, three out of eight chips 3a to 3h were found to be flawless when tested by using the probe card 5' shown in FIG. 2. In FIG. 5A, the true characteristics of the chips tested are indicated by broken lines. In view of the true characteristics of the chips, seven chips should have been found to be flawless. This means that four chips [were] 3a, 3f, 3g and 3h were regarded as defective, though they were flawless in fact.

A7
In the paragraph beginning at line 54 of column 5, enter the indicated amendment:

Namely, some of the flawless chips which were regarded as defective when tested by using the conventional probe card 5' were correctly found [to] flawless when tested by using the probe card 15 according to the invention. In other words, the probe card 15 serves to test chips with high accuracy, thus saving flawless chips which would have been discarded as defective if the conventional probe card 5' had been used. As a result, the probe card 15 serves to decrease the manufacturing cost of semiconductor integrated circuits.

A8
In the paragraph beginning at line 21 of column 6, enter the indicated amendment:

Thus, the four groups 19a to 19d of probe needles to contact the chips 3a to 3d, groups 21a to 21d of probe contacts, and groups 37a to 37d of wires are arranged in the right half 33R of the substrate. The remaining four groups 19e to 19h of probe needles to contact the chips 3e to 3h, groups 21e to 21h of probe contacts, and groups 37e to 37h of wires are arranged in the [right] left half 33L of the substrate.

In the paragraph beginning at line 53 of column 7, enter the indicated amendment:

A9
Still further, the number of chips tested simultaneously at one test station increases since two or more probe cards 15 are attached to one test station. Therefore, the facility cost for testing one chip is low. Having only one test station, the [prober] probing system shown in FIG. 9 occupies a smaller floor area than the [prober] probing system shown in FIG. 8 which needs two test stations to test the same number of chips at the same time. The smaller the floor area required, the lower the air-conditioning cost required, or the [hither] higher the air purity in the probing room. In view of this, the probe-testing method according to the fifth embodiment helps to decrease the possibility that chips are contaminated with harmful substance such as sodium and the possibility that the wires of each chip are short-circuited by electrically conductive particles such as silicon dust.

In the paragraph beginning at line 25 of column 8, enter the indicated amendment:

A10
A semiconductor IC [chips] chip which can be easily tested by using a probe card [which is] according to the seventh embodiment of the invention will now be described.

In the paragraph beginning at line 43 of column 8, enter the indicated amendment:

A11
A semiconductor IC chip should have pads arranged in a column to be tested [by] using [the] a probe card according to the invention, which has groups of probe needles arranged in the specific manner described above.

In the paragraph beginning at line 9 of column 9, enter the indicated amendment:

A12
Designed to test chips arranged in eight rows, the probe card 15 inevitably [have] has a larger diameter D than the first embodiment (FIG. 3). Hence, it may have the same problems as does the conventional probe card 5' (FIG. 2). Nevertheless, the eighth embodiment will be practically useful since the probe card technology is well expected to advance to simultaneously test 16 chips arranged in eight rows and two columns, with accuracy as high as in the case eight chips arranged in four rows and two columns are tested at the same time. Needless to say, the eighth embodiment has a smaller diameter than a conventional probe card which is designed to test 16 chips arranged in a single